

REMARKS

In view of the above amendments and the following remarks, reconsideration of the rejections and further examination are requested. Upon entry of this amendment, claims 1-4 are amended, leaving claims 1-4 pending with claims 1 and 3 being independent. No new matter has been added.

Rejections Under 35 U.S.C. §102(b) and (e)

Claims 1-4 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Ikuo (JP 11-082200).

Claims 1-4 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Tanikawa et al. (U.S. 6,988,478).

Applicants submit that the claims as now pending overcome the cited prior art. Amended independent claim 1 recites a synthetic resin weld body, including a first member made of synthetic resin which forms a plurality of first passage parts including a plurality of bores, and a second member made of synthetic resin which forms a plurality of second passage parts, wherein the first member is configured to connect to the second member, wherein each of the first passage parts includes a top end connecting face formed around a respective one of the bores and having a first end and a second end, first and second mount connecting faces rising from the first and second ends, respectively, of the top end connecting face, and first and second ridge lines disposed on each of the first passage parts adjacent respective the first and second mount connecting faces, respectively; wherein, for each of the first passage parts, a first rising boundary line is defined between the first end of the top end connecting face and the first mount connecting face, and a second rising boundary line is defined between the second end of the top end connecting face and the second mount connecting face; wherein all of the first and second rising boundary lines are substantially parallel to one another; wherein a plurality of passages are formed by connecting the first passage parts and the second passage parts, respectively, when the first member and the second member are connected and vibration-welded, the vibrations in the

vibration welding being applied in a direction substantially parallel to the rising boundary lines; wherein at least one of the plurality of passages extends in an orthogonal direction that is substantially orthogonal to the direction in which the rising boundary lines extend and at least another of the plurality of passages extends in a direction different from the orthogonal direction in which the at least one of the plurality of passages extends; and wherein each rising boundary line is disposed at or within a predetermined distance of a contact point between the respective connecting mount face where the respective ridge line is tangential to a respective bore and the respective end of the top end connecting face at the inner edge of the top end connecting face at the respective bore.

One embodiment of the present invention as recited in claim 1 is shown in Figs.1, 2, 5 and 6 (rising boundary lines shown as 78b-1, 78b-2, 78c-1, 78c-2, 78d-1 and 78d-2). In Fig.2, a direction line that is orthogonal to the traveling direction line Rd of the intake passage 22d having an intersecting point at the axis center 52d of the bore 50d is indicated by Sd. The intersecting point 82d-1, 82d-2 is the position where the orthogonal direction line Sd intersects with the inner edge 80 at the bore 50d side at the top end connecting face 74d, namely, the first position to intersect with the mount connecting face 76d-1, 76d-2. The intersecting point 82d-1, 82d-2 corresponds to an interface of a contact point at the ridge line 84d-1, 84d-2 of the mount connecting face 76d-1, 76d-2 where the ridge line is tangential to the bore and with the inner edge 80 of the top end connecting face 74d at the bore 50d side. The rising boundary line 78d-1, 78d-2 is the line crossing the mount connecting face 76d-1, 76d-1 in the parallel direction to line A-A from the intersecting point 82d-1, 82d-2. At the rising boundary line 78d-1, 78d-2, the mount connecting face 76d-1, 76d-2 rises upwards from the top end connecting face 74d. Here, to make vibration-welding possible, the width is configured to be parallel to the standard direction for vibration (i.e., the vibrations are parallel to the rising boundary lines) at any position of the mount connecting faces 76d-1, 76d-2 respectively rising from the rising boundary lines 78d-1, 78d-2.

As shown in Fig.2, though the rising boundary lines 78b-1 and 78b-2 are parallel to the line A-A, the rising boundary lines 78b-1 and 78b-2 are not arranged to be on the same line. In the same manner, the rising boundary lines 78c-1 and 78c-2 are not arranged to be on

the same line, and the rising boundary lines 78d-1 and 78d-2 are not arranged to be on the same line (see Fig.1). See the last line of page 18 to line 24 of page 19 of the specification.

Therefore, as shown in Fig. 6, when the branched lower arm 24d of the middle member 70 is formed by a die, the die is pulled out in the direction of arrow Z1. The inner ridge line 84d-1 of the mount connecting face 76d-1 and the inner ridge line 84d-2 of the mount connecting face 76d-2 are on the same plane H1, and are the farthest from each other in the left-right direction. Therefore, at the inner wall 89 of the branched lower arm 24d, there is no portion which is dented from the inner ridge line 84d-1 and the inner ridge line 84d-2. Then, the inner ridge line 84d-1 and the inner ridge line 84d-2 do not project to the lower passage space 30d of the branched lower arm 24d beyond some point. Therefore, a thick portion is neither formed below the inner ridge line 84d-1 nor below the inner ridge line 84d-2. In the same manner, a thick portion is not formed at the branched lower arms 24b, 24c of the middle member 70.

Additionally, when branched upper arm 32d of the upper member 72 is formed by a die, the die is pulled out in the direction of arrow Z2. At the inner wall 91 of the branched upper arm 32d, there is no portion which is dented from the inner ridge line 90d-1 and the inner ridge line 90d-2. Then, the inner ridge line 90d-1 and the inner ridge line 90d-2 do not project to the upper passage space 34d of the branched upper arm 32d beyond some point. Therefore, a thick portion is neither formed above the inner ridge line 90d-1 nor above the inner ridge line 90d-2. In the same manner, a thick portion is not formed at the branched upper arms 32b, 32c of the upper member 72.

Therefore, since the rising boundary lines “78b-1 and 78b-2”, “78c-1 and 78c-2” and “78d-1 and 78d-2” are not arranged to be on the same line, the sectional shapes of all the intake passages 22a, 22b, 22c, 22d can be circular, which is the ideal shape for maximum fluid passage, as shown in Fig. 5. See line 23 of page 20 to line 20 of page 22.

On the contrary, neither Ikuo nor Tanikawa disclose or render obvious the claimed rising boundary lines. More specifically, neither Ikuo nor Tanikawa describe the element of “said rising boundary line that is disposed at or within a predetermined distance of a contact point between the respective connecting mount face where the respective ridge line is tangential to a respective bore and the top end connecting face at the inner edge of the top end

connecting face at the respective bore”, as recited in claim 1.

Ikuo discloses a suction system 1 in which a manifold bottom part and a manifold top part are connected together. *See Fig. 3*, reference nos. 5A and 11A. However, there is clearly no disclosure of the claimed rising boundary lines. In fact, Ikuo discloses manifold bottom and top parts that connect without a rising boundary line, let alone a rising boundary line as claimed.

In Tanikawa, the Examiner cited element 39 in Fig. 5 in the office action as evidence of anticipation of claim 1; however, this weld portion does not disclose nor render obvious the rising boundary line as claimed. That is, there is no rising boundary line that is disposed at or within a predetermined distance of a contact point between the respective connecting mount face where the respective ridge line is tangential to a respective bore and the top end connecting face at the inner edge of the top end connecting face at the respective bore.

Therefore, since none of the cited references disclose or render obvious all of the elements of claim 1, Applicants submit that independent claim 1 and its dependent claim are allowable.

Applicants submit that independent claim 3 and its dependent claim are allowable for substantially similar reasons to those discussed above. Namely, independent claim 3 recites, a synthetic resin weld body, including a first member made of synthetic resin which forms a bore and a first passage part leading to the bore; and a second member made of synthetic resin which forms a second passage part, wherein the first member and the second member are configured to connect, wherein the first passage part includes a top end connecting face formed around the bore and having first and second ends, first and second mount connecting faces rising from the first and second ends, respectively, of the top end connecting face, and first and second ridge lines disposed on the first passage part adjacent the first and second mount connecting faces, respectively, wherein a first rising boundary line is defined between the first end of the top end connecting face and the first mount connecting face, and a second rising boundary line is defined between the second end of the top end connecting face and that second mount connecting face, wherein the first boundary line is substantially parallel to the second rising boundary line, wherein a passage is formed by connecting the first passage part

and the second passage part, when the first member and the second member are connected and vibration-welded, the vibrations being applied in a direction substantially parallel to the first and second rising boundary lines; wherein a direction of the passage near the bore differs from a direction that is orthogonal to the first and second rising boundary lines, and wherein the rising boundary line is disposed at or within a predetermined distance of a contact point between the mount connecting face where the ridge line is tangential to the bore and the inner edge of the top end connecting face at the bore.

In view of the foregoing amendments and remarks, all of the claims now pending in this application are believed to be in condition for allowance. Reconsideration and favorable action are respectfully solicited.

Should the Examiner believe there are any remaining issues that must be resolved before this application can be allowed, it is respectfully requested that the Examiner contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

Kazuyori KITO et al.

By: _____


Jeffrey J. Howell
Registration No. 46,402
Attorney for Applicants

JJH/CRW/kh
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
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